

## TECHZHUAL SUPPORT 2014

### PHENIX WEEKLY PLANNING



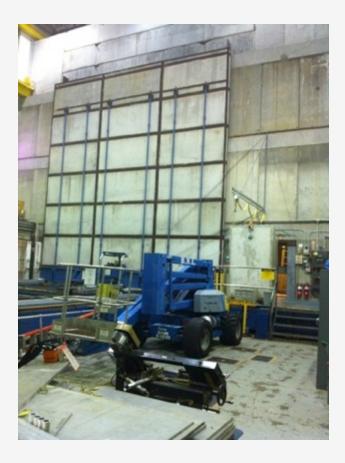
March 20, 2014 Don Lynch





### This Week

- Run 14 Continues
- Access yesterday:
  - MPC-Ex rack serviced, FEM not ready yet
  - Leaky magnet hoses and magnet switches repaired by CAD
  - Other maintenance?
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required





## THUHUAL SUPPORT 2014

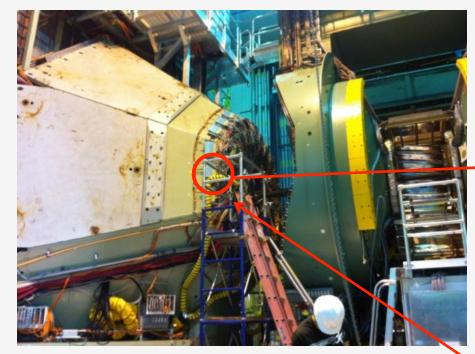
### Next Week

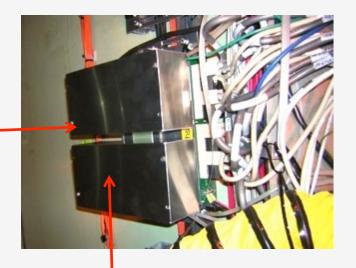
- Run 14 Continues
- Next Access 3/26?
  - Install MPC-Ex FEM Other IR maintenance/repairs
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- sPHENIX Review
- Support for sPHENIX efforts as required



### MPC-Ex Initial (Partial) Installation

## -ECHZHUAL SUPPORT 2014







Mechanical installation Complete Services connected

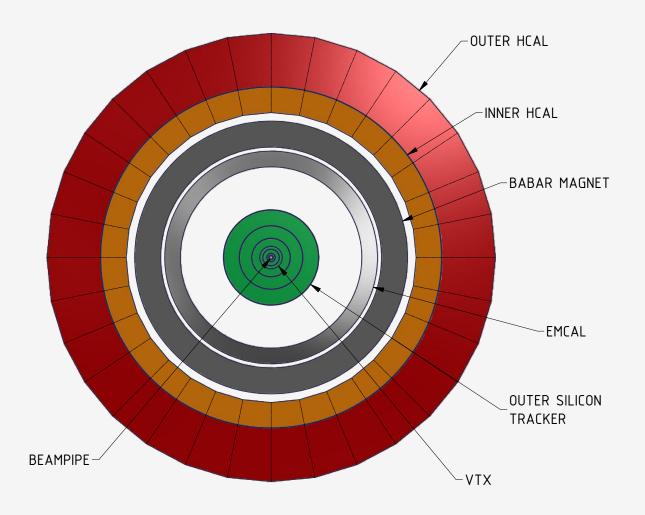
FEM assembly waiting for final FEM modules

New MPC-Ex rack



# FECHZHUAL SUPPORT NO14

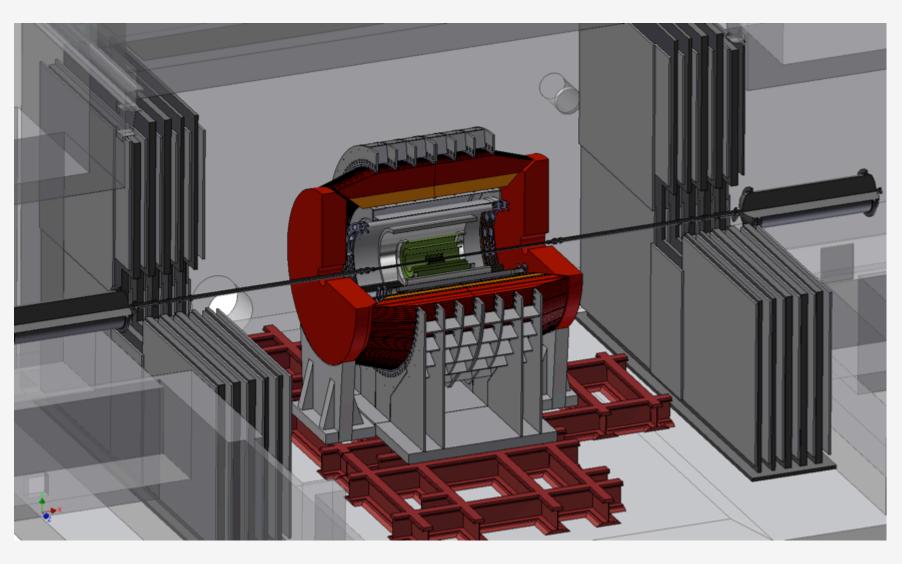
### sPHENIX Detector Subsystems





### sPHENIX Overall Detector Design Concept

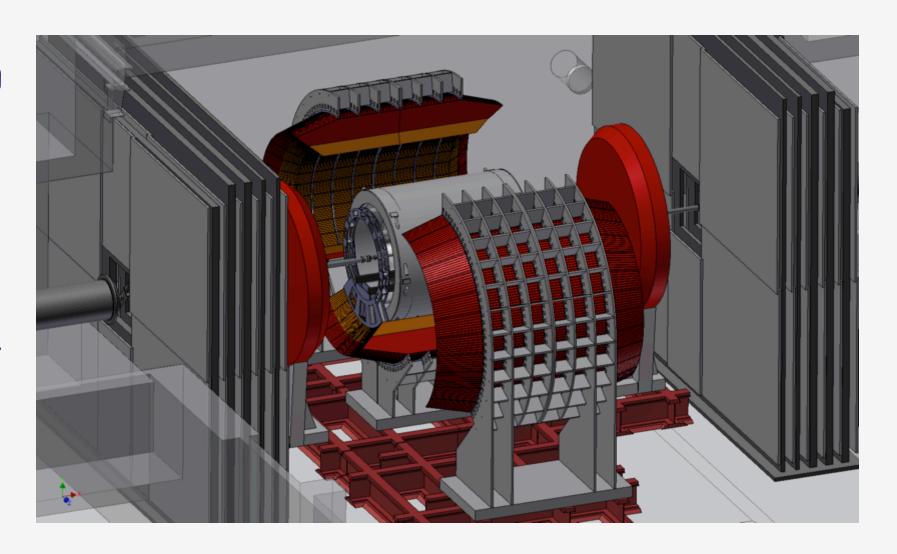








### sPHENIX Overall Structural/Support Concept



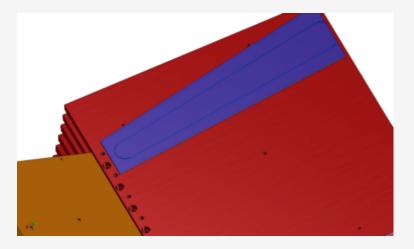


# THUHZHUAL SUPPORT 2014

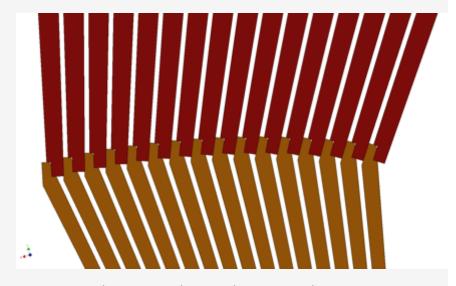
### sPHENIX HCal Mechanical Design Concept



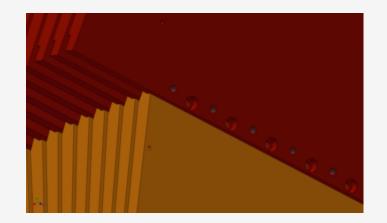
HCal Module

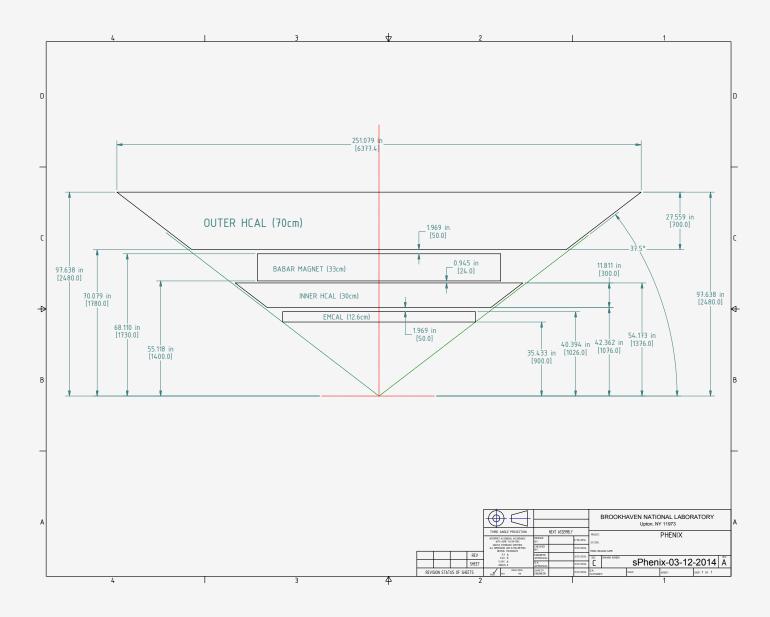


3/20/2014 HCal Scintillator Light Collection (Improvements to Prototype are needed)



HCal Internal Steel Assembly (Same as concept used in prototype)



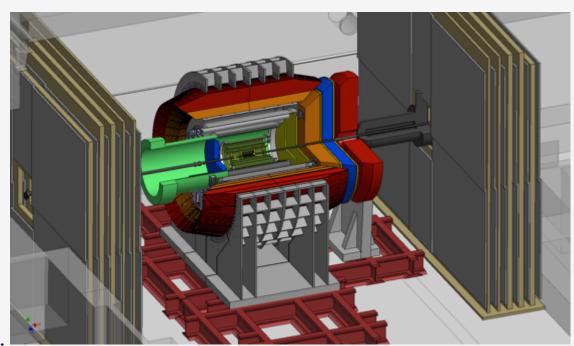


Conceptual Model with  $\frac{1}{2}$  of HCAL inside magnet

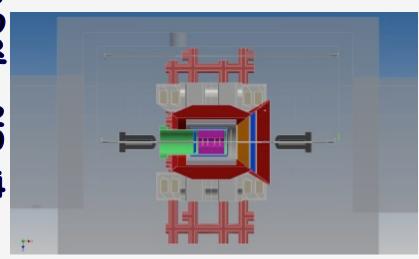


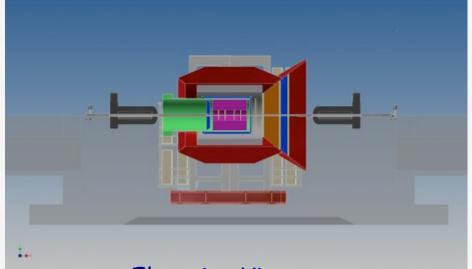
# FECTZHUAL SUPPORT NO14

### ePHENIX



Plan View





**Elevation View** 



### 2014 planned Technical Support & 2014 Shutdown

<b>TECHZHCAL</b>	
SUPPORT	
2014	

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Support for run 14	2/3-6/30/2014
Support for sPHENIX prototype tests at FermiLab	1/21-2/25/2014
Procure & Fabricate parts for MPC-Ex North and South	1/1/2014-6/30/2014
Assemble & test MPC-Ex South, ready for installation	3/1-7/1/2014
End of Run Party	7/11/14?
Assemble & test MPC-Ex North, ready for installation	7/1-9/25/2014
Start of Shutdown Tasks (purge flammable gas, disassemble and stow shield wall, remove collars, move EC to AH, Move	
MMS south, etc.)	7/14 - 7/25/2014
Remove MMS east vertical lampshade	7/28-7/30/2014
Troubleshoot intermittent water leak in MMS	7/30- 8/8/2014
Other Maint, In MMS	TBD
Reinstall MMS east vertical lampshade	TBD
Summer Sunday prep AH, tours and restore AH	7/30-8/15/2014
Install scaffolding in Sta 1 South	7/28/2014
Remove MPC-Ex prototype, Install new MPC-Ex South	7/28-8/22/2014
Maint. & Repairs for MPC South, BBC South, RPC1 South, MuTr sta 1	
South, as necessary	7/28-8/22/2014
Remove scaffolding from sta 1 south, Move CM South	8/25/2014
Install scaffolding in Sta 1 North	8/26-8/29/2014
Prep MPC-Ex North installation area	9/1-9/26/2014
Install new MPC-Ex North	9/29-10/17/2014
Remove Sta 1 North scaffolds, Move CM North	10/20-10/24/2014
Other detector support	TBD
Infrastructure Maintenance and Improvement	TBD
Decommissioning of obsolete PHENIX detector equipment	TBD
sPHENIX Support	on-going
End of Shutdown Tasks (Move MS north, roll in EC , install collars,	
remove 10 ton cart, plates and manlifts, build shield wall, etc.)	10/27-11/26/2014
Pink/White/Blue Sheets	1/17/2014
End of Shutdown Party	5555
Start Flammable gas flow	5555
Close shield wall, install radiation interlocks and prepare for run 14	12/31/2014
Start run 15	1/2/2015



### PHENIX Safety and Security

From Ray Karol: C-AD personal who place batteries in a Satellite Area for disposal or recycling must always do the following to protect against overheating of the batteries during transportation:

Department of Transportation (DOT) Rules regarding battery preparation for disposal:

- 1. All dry cell batteries >9V must have terminals taped to prevent shorting of the battery
- 2. All Lithium batteries (including metal coin and cylindrical metal cells), no matter what the voltage is, must be taped to prevent shorting of the cells
- 3. Do Not place batteries in the 90 areas unless these rules are followed by the person placing the batteries in the area at the time of placement

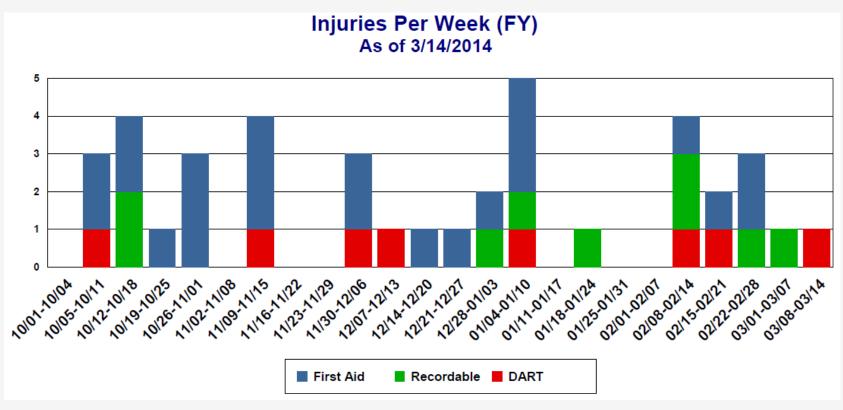
### Basis:

Lithium cells are capable of causing higher temperatures even in a discharged state than comparable alkaline and carbon zinc batteries when shorted by touching each other's terminals. Also most lithium batteries contain a flammable electrolyte not found in other dry battery chemistries. All dry batteries > 9 V can produce similar levels of heating when terminals touch during transportation.



## THUHZHUAL SUPPORT 2014

### Safety and Security



### **Injury Status:**

FY14 YTD: DART – 8, TRC – 17, First Aid – 23 FY13: DART – 15, TRC – 38, First Aid – 53 FY12: DART – 19, TRC – 36, First Aid – 69

FY13 Injury Listing: https://intranet.bnl.gov/esh/shsd/seg/Occlnj/BNLInjuries.aspx

Recent Injuries				
3/11/14	DART	An employee lacerated his thumb while positioning a vehicle. After examination at OMC, Fire/Rescue transported the worker to the emergency room for treatment.		

Recent Events		
3/13/14	Non- Reportable	A dead tree, impacted by high winds, fell across the entrance /driveway between Buildings 902 and 197. The tree fell behind a row of parked cars, but did not strike any of them. No personnel were in the immediate vicinity. (Event Link)
3/11/14	Non- Reportable	It was discovered that two contractors from Bytec, Inc. were conducting work in Building 902 Room U-82 without documentation of work planning. The contractors were disassembling audio-visual equipment and using power tools to modify a lectern to be transported to Building 938. Upon request, the contractors were unable to supply a Phase Hazard Analysis (PHA) and a work permit had not been generated for the activity. The contractors were wearing appropriate Personal Protective Equipment (PPE) for the task and no unsafe acts were observed. (Event Link)
3/12/14	Non- Reportable	The South Complex performed a scheduled and routine preventive maintenance test on the Building 735 Emergency Generator. When the test was initiated, the generator did not start in Auto. Further investigation revealed that a trouble code was locked into the microprocessor, giving the system the false indication that it was not in Auto. The fault code was cleared by resetting the system and the generator was tested in Manual satisfactorily. The system was returned to Auto and a retest of the generator will be scheduled with concurrence from the Program operating within the building. (Event Link)
3/9/14	Non- Reportable	Approximately 40 feet of exterior screens and diverter panels broke off of Cooling Tower 7 due to ice build up and fell to the ground. The structural integrity of the tower remains intact. This occurred on the side of the tower where there is normally no foot traffic by personnel. There were no injuries. (Event Link)



### Where To Find PHENIX Engineering Info

### Run 14 Continues!



Spring arrived this afternoon at 12:57 PM EST.

(The weather, however, does not seem to agree)